

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION 7

SITE NAME: DeBruce Grain

KDHE ID #: C2-087-73093 EPA ID#: KSN000706409

FINAL

Alias/Alternate Site Names: DeBruce Grain Elevator Explosion

City: Wichita

County: Sedgwick

State: Kansas

Refer to Report Dated: May 2014

Report type: Preliminary Assessment (PA)

Report developed by: Kansas Department of Health and Environment/Bureau of Environmental Remediation (KDHE/BER)

Project Manager: Nicholas Schneider, KDHE/BER

DECISION: The PA has identified a release of carbon tetrachloride apparently originating from the DeBruce Grain elevator. Several domestic wells were also identified within areas that may be impacted by known carbon tetrachloride plumes. A Site Inspection (SI) is recommended to sample domestic wells and evaluate the apparent upgradient carbon tetrachloride plume.

DISCUSSION/RATIONALE: The DeBruce Grain site is located in Wichita, Sedgwick County, Kansas. Between 1953 and 1955 the Garvey Grain Company constructed the elevator and operated at this location until 1996, when the facility was sold to DeBruce Grain, Inc. ("DeBruce Grain"). A major explosion occurred at the elevator in 1998. DeBruce Grain was acquired by Gavilon Grain, LLC, in 2010.

The Occidental Chemical Corporation ("Occidental") facility formerly operated as the Vulcan Materials Company is located directly adjacent to the DeBruce Grain facility. This facility is currently being addressed through the Resource Conservation and Recovery Act (RCRA) Corrective Action program under EPA oversight. The KDHE Site Assessment Program was requested by EPA Region VII Corrective Action staff to conduct additional site assessment at the DeBruce Grain site since no additional data had been collected since the 1998 explosion by DeBruce Grain or its successor corporation. Occidental has conducted some limited sampling near the DeBruce Grain facility in order to better characterize carbon tetrachloride releases which are also present on the Occidental Chemical Corporation facility. The KDHE Site Assessment Program provided the EPA RCRA Corrective Action project manager, Gavilon Grain personnel, and Occidental personnel the final work plan documents prior to initiating field work. The scope of work was agreed upon prior to initiating field activities.

During this PA, 15 locations were chosen for direct-push groundwater samples at two discrete intervals (34 and 52 feet below surface). Carbon tetrachloride was detected at a maximum of 15,000 micrograms per liter ($\mu\text{g/L}$) in the shallow interval at location PA-7-34, and 19,000 $\mu\text{g/L}$ in the deep interval at PA-15-52. Since multiple shallow sample intervals indicated carbon tetrachloride over 1,000 $\mu\text{g/L}$ on the southeastern side of the elevator, while none of the samples collected on the northwestern side indicated carbon tetrachloride over 1 $\mu\text{g/L}$, the DeBruce Grain elevator appears to be a source of carbon tetrachloride contamination in groundwater.

Multiple domestic wells were identified during the target distance search for the PA, and several of these appear to have not been sampled that may be within areas impacted by the Occidental and/or DeBruce Grain carbon tetrachloride releases in groundwater. Another area of carbon tetrachloride contamination in groundwater was also identified north of the DeBruce Grain and Occidental facilities during the PA. A higher-priority Site Inspection (SI) is recommended consistent with the National Oil and Hazardous Substances Pollution Contingency Plan to (1) sample potentially impacted domestic wells and (2) further evaluate the northern carbon tetrachloride groundwater release. At the conclusion of the SI, KDHE will review potential programmatic options for all of the potential sources within the site area that are not currently being addressed through a KDHE or EPA remediation program. A responsible party search will be conducted by KDHE parallel with completion of the SI.

Report Reviewed and

Approved by: Randolph L. Brown, P.G., KDHE/BER Signature:  Date: 06/10/2014

Site Decision Concurrence

Made by: Paul Roerman, Kansas SAM, EPA Signature: _____ Date: _____